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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,388	08/10/2001	David Collier	COL001	7101

7590 04/20/2004

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EXAMINER	
SINGH, SUNIL	

ART UNIT	PAPER NUMBER
3673	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)
	09/830,388	COLLIER ET AL.
	Examiner	Art Unit
	Sunil Singh	3673

-- The MAILING DATE of this communicati n appears on th cover sheet with the correspondence address --

Period for R ply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 39-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *39-43* is/are allowed.

6)☒ Claim(s) *1-5, 9, 14-16* is/are rejected.

7)☒ Claim(s) *6-8, 10-13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Pri rity under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachm nt(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim R j ctions - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> **A person shall be entitled to a patent unless –**
>
> **(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

2. Claims 1-4 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Estes (US 3385069).

Estes discloses an offshore structure comprising a base (2), legs (3) and deck (4).

3. Claims 1-3 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hellerman et al.

Hellerman et al. discloses an offshore structure comprising a base (44), a substantially rectangular deck (12,16) having a width and a length with the width being defined between two substantially parallel side edges and the length being defined between two additional side edges, a plurality of legs (the legs are considered as the combination of (members 20 and 26 as one leg), (22,28) as a second leg and (18,30) as a third leg, etc.) extending substantially perpendicular to the base and the deck, wherein the plurality of legs are attached to the base outboard of said parallel side edges so as to be spaced a distance greater than the width of the deck such that the deck is positioned entirely between opposing ones of the plurality of legs while the length of the deck is greater than a distance between adjacent ones of the plurality of legs, and a

connection is provided directly between an inwardly facing face of each of the plurality of legs and a respective one of the parallel side edges of the deck such that the deck is fixed to the plurality of legs (see Fig. 2). Each said leg comprises a vertically extending chord at each comer thereof. Each said chord is circular in cross section.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

5. Claims 1-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corder (US 266887).

Corder discloses an offshore structure comprising a base (12), a substantially square deck (16) having a width and a length with the width being defined between two substantially parallel side edges (see attached marked up Figure 1 for interpretation of parallel side edges) and the length being defined between two additional side edges (see attached marked up Figure 1 for interpretation of the additional side edges), a plurality of legs (14) extending substantially perpendicular to the base between the base and the deck, wherein the plurality of legs are attached to the base outboard of said parallel side edges so as to be spaced a distance greater than the width of the deck such that the deck is positioned entirely between opposing ones of the plurality of

legs while the length of the deck is greater than a distance between adjacent ones of the plurality of legs, and a connection is provided directly between an inwardly facing face of each of the plurality of legs and a respective one of the parallel side edges of the deck such that the deck is fixed to the plurality of legs (see col. 7 line 45, col. 9 line 54). Each said leg comprises a vertically extending chord at each comer thereof. Each said chord is circular in cross section. Corder discloses the invention substantially as claimed. However, Corder is silent about his deck being rectangular in shape. Rectangular shaped decks are notoriously old and conventional. It would have been considered obvious to one of ordinary skill in the art to modify Corder by making his deck rectangular in shape since this is a mere design choice.

It should be noted that the limitation "the length of the deck is greater than a distance between adjacent ones of the plurality of legs" has been met since the examiner is considering the "adjacent legs" to be the legs that lie in the plane of the width of the deck and since the length of a rectangle is longer than the width the above mentioned limitation is met.

With regards to claim 4, it would have been considered obvious to one of ordinary skill in the art modify Corder by making his legs triangular in shape instead of square since triangular shaped legs are notoriously old and conventional. Such a modification would be pure design choice. **It should be noted that numerous art of record shows rectangular shaped decks and triangular shaped legs.**

6. Claims 5, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corder as applied to claim 2 above, and further in view of Structural Steel Design (pages 207,237).

Corder (once modified) discloses the invention substantially as claimed. However, the (once modified) Corder is silent about the connection comprising a shear plate with top and bottom coupling plates. Structural Steel Design (pages 207, 237) teaches that it is well known in connecting two structures there are numerous modes of failure, namely shear, bending and axial; therefore it is known to design a connection with a shear plate with a top and bottom coupling plates (see pages 207,237) to prevent the above mention modes of failure. It would have been considered obvious to one of ordinary skill in the art to further modify the (once modified) Corder to include the connecting means as taught by Structural Steel Design in order to prevent the structure from failing at the connection point between the legs and the deck.

7. Claims 1-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blenkarn (US 3392534) in view of Corder (US 266887).

Blenkarn discloses an offshore structure comprising a base (20), a substantially rectangular deck (10) having a width and a length with the width being defined between two substantially parallel side edges (see attached marked up Figure 1 for interpretation of parallel side edges) and the length being defined between two additional side edges (see attached marked up Figure 1 for interpretation of the additional side edges), a plurality of legs (12) extending substantially perpendicular to their respective bases between the bases and the deck, wherein the plurality of legs are attached to their

respective bases outboard of said parallel side edges so as to be spaced a distance greater than the width of the deck such that the deck is positioned entirely between opposing ones of the plurality of legs while the length of the deck is greater than a distance between adjacent ones of the plurality of legs, and a connection is provided directly between an inwardly facing face of each of the plurality of legs and a respective one of the parallel side edges of the deck such that the deck is fixed to the plurality of legs (see all the figures). Each said leg comprises a vertically extending chord at each comer thereof. Each said chord is circular in cross section. Each leg is triangular. Blenkarn discloses the invention substantially as claimed. However, Blenkarn lacks a singular base attached to all the legs. Corder teaches a singular base (12) attached to a plurality of legs. It would have been considered obvious to one of ordinary skill in the art to modify Blenkarn by substituting the base as taught by Corder for the plurality of bases disclosed by Blenkarn since such a modification would provide stability along the seabed.

It should be noted that the limitation "the length of the deck is greater than a distance between adjacent ones of the plurality of legs" has been met since the examiner is considering the "adjacent legs" to be the legs that lie in the plane of the width of the deck and since the length of a rectangle is longer than the width the above mentioned limitation is met.

8. Claims 1-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (US 3999396) in view of Corder (US 266887).

Evans discloses an offshore structure comprising a substantially rectangular deck (11) having a width and a length with the width being defined between two substantially parallel side edges and the length being defined between two additional side edges, a plurality of legs (the legs are considered as the combination of (members 12 and 17 as one leg), (13,17) as a second leg and (14,17) as a third leg) extending substantially perpendicular to the seabed and the deck, wherein the plurality of legs are attached to the seabed outboard of said parallel side edges so as to be spaced a distance greater than the width of the deck such that the deck is positioned entirely between opposing ones of the plurality of legs while the length of the deck is greater than a distance between adjacent ones of the plurality of legs, and a connection is provided directly between an inwardly facing face of each of the plurality of legs and a respective one of the parallel side edges of the deck such that the deck is fixed to the plurality of legs (see col. 3 line 9). Each said leg comprises a vertically extending chord at each comer thereof. Each said chord is circular in cross section. Each leg is triangular. Evans discloses the invention substantially as claimed. However, Evans lacks a base attached to all the legs. Corder teaches a singular base (12) attached to a plurality of legs. It would have been considered obvious to one of ordinary skill in the art to modify Evans by including the base as taught by Corder since such a modification would provide stability along the seabed.

It should be noted that the limitation "the length of the deck is greater than a distance between adjacent ones of the plurality of legs" has been met since the examiner is considering th "adjacent legs" to be the legs that li in the plane of

th width of th deck and sinc the length of a r ctangle is longer than the width th above mentioned limitation is met.

9. Claims 5, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans in view of Corder as applied to claim 2 above, and further in view of Structural Steel Design (pages 207,237).

Evans (once modified) discloses the invention substantially as claimed. However, the (once modified) Evans is silent about the connection comprising a shear plate with top and bottom coupling plates. Structural Steel Design (pages 207, 237) teaches that it is well known in connecting two structures there are numerous modes of failure, namely shear, bending and axial; therefore it is known to design a connection with a shear plate with a top and bottom coupling plates (see pages 207,237) to prevent the above mention modes of failure. It would have been considered obvious to one of ordinary skill in the art to further modify the (once modified) Evans to include the connecting means as taught by Structural Steel Design in order to prevent the structure from failing at the connection point between the legs and the deck.

10. Claims 1-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dysarz (US 4388024).

Dysarz discloses an offshore structure comprising a base (19), a substantially triangular deck (13), a plurality of legs (15-17), a connection (see col. 5 line 22) is provided directly between an inwardly facing face of each of the plurality of legs and a respective side edge of the deck such that the deck is fixed to the plurality of legs. Each said leg comprises a vertically extending chord at each comer thereof. Each said chord is

circular in cross section (see Fig. 14). The legs are triangular (see Fig. 1). Dysarz discloses the invention substantially as claimed. However, Dysarz is silent about his deck being rectangular in shape. Rectangular shaped decks are notoriously old and conventional. It would have been considered obvious to one of ordinary skill in the art to modify Dysarz by making his deck rectangular in shape since this is a mere design choice.

11. Claims 5, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dysarz as applied to claim 2 above, and further in view of Structural Steel Design (pages 207,237).

Dysarz (once modified) discloses the invention substantially as claimed. However, the (once modified) Dysarz is silent about the connection comprising a shear plate with top and bottom coupling plates. Structural Steel Design (pages 207, 237) teaches that it is well known in connecting two structures there are numerous modes of failure, namely shear, bending and axial; therefore it is known to design a connection with a shear plate with a top and bottom coupling plates (see pages 207,237) to prevent the above mention modes of failure. It would have been considered obvious to one of ordinary skill in the art to further modify the (once modified) Dysarz to include the connecting means as taught by Structural Steel Design in order to prevent the structure from failing at the connection point between the legs and the deck.

12. Claims 5, 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellerman et al. in view of Structural Steel Design (pages 207,237).

Hellerman et al. discloses the invention substantially as claimed. However, Hellerman et al. is silent about the connection comprising a shear plate with top and bottom coupling plates. Structural Steel Design (pages 207, 237) teaches that it is well known in connecting two structures there are numerous modes of failure, namely shear, bending and axial; therefore it is known to design a connection with a shear plate with a top and bottom coupling plates (see pages 207,237) to prevent the above mention modes of failure. It would have been considered obvious to one of ordinary skill in the art to modify Hellerman et al. to include the connecting means as taught by Structural Steel Design in order to prevent the structure from failing at the connection point between the legs and the deck.

Allowable Subject Matter

13. Claims 39-43 are allowed.

14. Claims 6-8 and 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (703) 308-4024. The examiner can normally be reached on Monday through Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703) 308-2978. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sunil Singh

Patent Examiner
Art Unit 3673

SS

2/14/2004

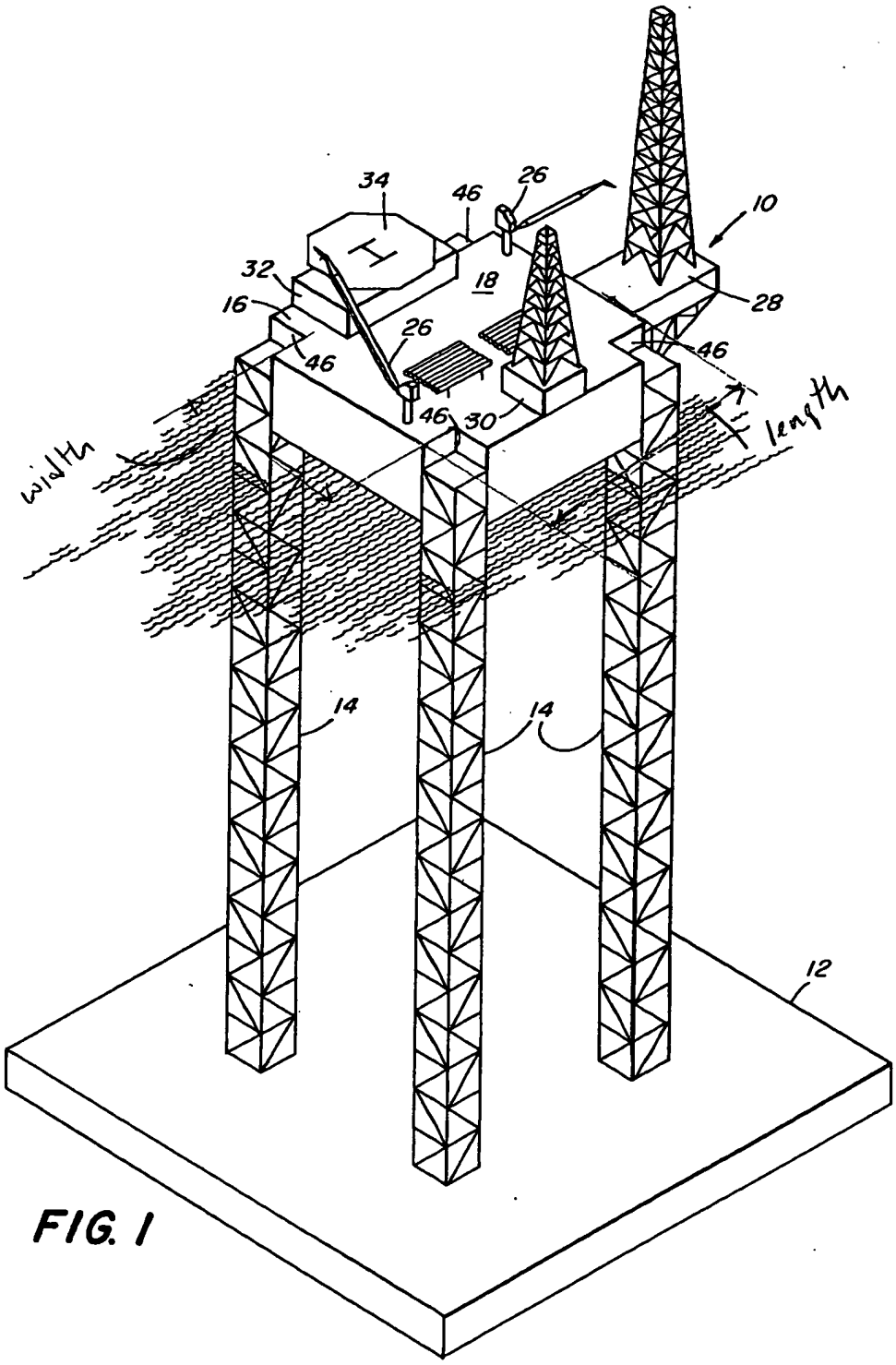


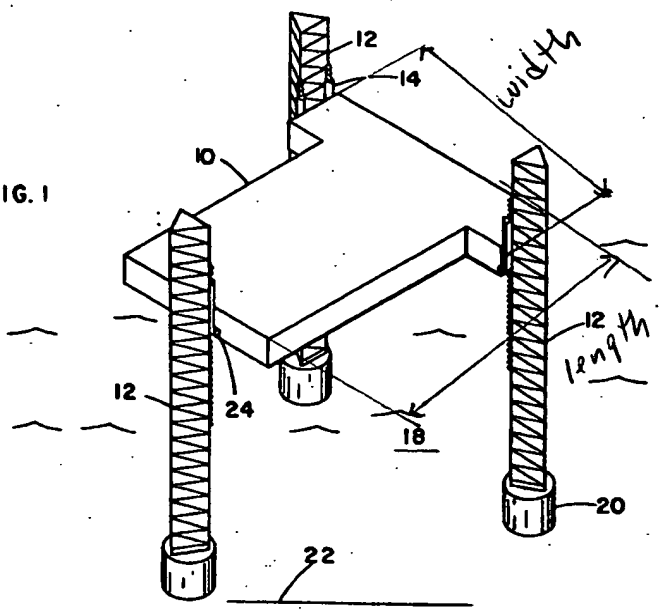
FIG. 1

July 16, 1968 K. A. BLENKARN 3,392,534

OFFSHORE DRILLING STRUCTURE

Filed Sept. 9, 1965 4 Sheets-Sheet 1

FIG. 1



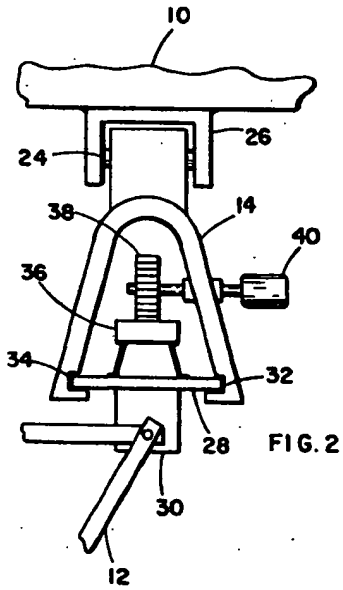


FIG. 2

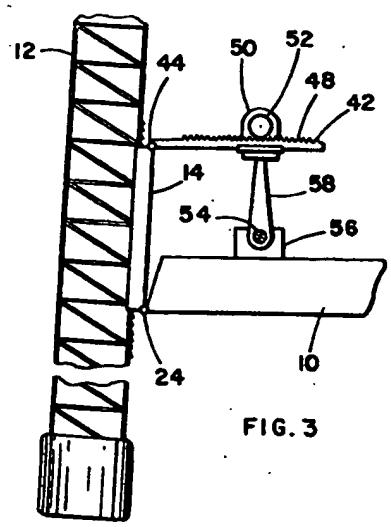


FIG. 3

KENNETH A. BLENKARN
INVENTOR.

BY John D. Gassett

ATTORNEY.